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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/022,732 | 12/20/2001 | Kiyoshi Aiki | HITA.0141 | 5606 |
| 38327 | 7590 | 05/10/2005 | EXAMINER | |
| REED SMITH LLP 3110 FAIRVIEW PARK DRIVE, SUITE 1400 FALLS CHURCH, VA 22042 | | | DINH, TUAN T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2841 | |

DATE MAILED: 05/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,732

Applicant(s)

AIKI ET AL.

Examiner

Tuan T. Dinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 6-20 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim 22 is withdrawn from further consideration as being drawn to non-subject matter because the limitation as recited in claim 22 does not read on the election/restriction requirement of Specie I (figures 1-8), the claim 22 does read on a second Specie (for example, figure 15).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Farnworth et al. (U.S. Patent 5,059,899).

As to claim 1, Farnworth et al. disclose a semiconductor integrated circuit device (a wafer (10), see figure 1, comprising: a plurality of bonding pads (18, column 2, lines 37-40) arranged along one of four sides (the pads are located on the right side of a die 12) of at least one semiconductor chip (12, column 2, line 32) embedded in the semiconductor integrated circuit device (10); at least one inspection pad (test pad 20-figure 2, column 2, line 44) on another one of the four sides (the test pad is located on the left side of the die 12) of the semiconductor chip (12); and a corresponding connection wire (column 2, lines 47-48), which is laid outside an input/output buffer area

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of the chip (12) for each of said bonding pads, for connecting said each bonding pad (18) with the inspection pad (20), see figure 2.

As to claim 2, Farnworth et al. discloses each of a plurality of semiconductor chips (12), see figure 1, of said semiconductor integrated circuit device (10) being arranged on a wafer (10) so as to arrange the sides with the inspection pads (20) of said chips (12) in parallel, see figure 2.

As to claim 3, Farnworth et al. discloses at least one connection wire (22), see figure 2 is laid inside the input/output buffer area.

As to claim 4, Farnworth et al. discloses each said connection wire in figure 2 has the same length.

As to claim 5, Farnworth et al. discloses the inspection pads (20) and the connection wires (22) are laid in a scribing area (line 14 of figure 2); and the inspection pads (20) and the bonding pads (18) are arranged in a row or zigzag, see figure 2, such that the inspection pads (20) and the connection wires (22) are to be removed from the semiconductor integrated circuit device (10) when the semiconductor integrated circuit device is cut off from a wafer at the scribing area after the semiconductor integrated circuit device is inspected with probe needles, see column 4, lines 25-38.

As to claim 21, Farnworth discloses the connection wires (22) is laid inside an area where the chip is formed, see figure 2.

Response to Arguments

3. Applicant's arguments with respect to claims 1-5, and 21-22 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues:

(a) None of the references cited from the previous Office action teaches or suggests "a bonding pad and an inspection pad wired with the bonding pad placed on different ones of the four sides of a semiconductor chip."

Examiner agrees. However, for further consideration and/or searches, Examiner believes the Farnworth reference does disclosed all of the limitations of the claimed invention.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

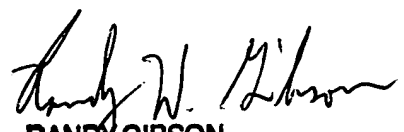
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sakumoto et al. discloses related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Dinh
October 22, 2004.


RANDY GIBSON
PRIMARY EXAMINER